New Jersey Department of Transportation



Revisions to the NJDOT Standard Roadway Construction/Traffic Control/Bridge Construction Details dated October, 1996 and the NJDOT Standard Specifications for Road and Bridge Construction, 1996 BDC97DS-001

March 18, 1999

Subject: Revisions to the Standard Roadway Construction Details CD-619-1 and CD-619-4 through CD-619-6 and the Standard Specifications for Road and Bridge Construction, Sections 619 and 916

Standard Roadway Construction Details sheet CD-619-1 has been revised to provide consistency with the MUTCD and sheets CD-619-4 through CD-619-6 have been revised to provide consistency with the NJDOT Design Manual - Roadway, Section 13, "Guidelines for the Design of Ground Mounted Sign Supports" (issued via BDC99MR-001 dated March 17, 1999).

The revisions made to the Standard Roadway Construction Details are as follows:

CD-619-1

• corrections to signs R3-5, R3-6, R(NJ)3-8A, 8B, 8C, and 8D

CD-619-4

- changes to the "Concrete Installation", "General Notes", and "Post Selection Table"
- deletion of the 4 post spacing in "U-Post Spacing" and "U-Post"

CD-619-5

- deletion of the "Sign Post", "Anchor Post", "Connector-Retainer Bolt", "Two Piece Steel U-Posts", and "Strap" (CD-619-5.1)
- addition of the "Steel U-Post Properties", "Soil Anchor Plates", "Top Post", and "Anchor Post" (CD-619-5.1)
- addition of the "Breakaway Sign Support" (CD-619-5.2)

CD-619-6

• deleted column "P₄" from the "Steel U-Post Sign Support Data Table"

Standard Specifications for Road and Bridge Construction, Section 619 and Subsection 916.02, has been revised to provide consistency with the revisions to the Standard Roadway Construction Details in this BDC announcement. Subsection 916.10 along with the above detail revisions were made because the manufacturer could not supply the original breakaway device as called for in the Department's standards. The new standard provides for either of two patented breakaway systems that are NCHRP 350 approved.

The revisions to the *Standard Specifications for Road and Bridge Construction*, 1996, Sections 619 and 916, will be provided in the future *Standard Input* as follows:

SECTION 619 - SIGNS

619.02 Materials.

THE THIRTEENTH ITEM UNDER THE LIST OF MATERIALS IS CHANGED TO:

2. Mounting Signs.

THE FIRST SENTENCE IS CHANGED TO:

All signs shall be mounted on Breakaway steel "U" post sign supports except that the small signs located behind guide rails and other roadside barriers shall be mounted on steel "U" post sign supports without the breakaway feature assembly.

619.04 Guide Signs.

THE FIRST PARAGRAPH IN THE 1998 SUPPLEMENTAL SPECIFICATIONS IS CHANGED TO:

Guide signs fabricated of extruded aluminum sheets shall be covered with Type II, III-A, or VI retroreflective sheeting depending on the following:

- 1. Guide signs on steel "U" posts shall be fabricated of flat aluminum sheets and shall be covered with Type II or Type III-A retroreflective sheeting. Legends, borders, and accessories shall be Type B unless otherwise designated.
- 2. Guide signs on overheads and breakaway or non-breakaway posts shall be fabricated of extruded aluminum panels covered with Type VI retroreflective sheeting. Legends, borders, and accessories shall be Type A.

2. Mounting Signs.

THE FIRST SENTENCE IS CHANGED TO:

Signs mounted on breakaway, non-breakaway, or steel "U" post sign supports are designated as Type GA.

THE LAST SENTENCE IS CHANGED TO:

Signs mounted on steel "U" post sign supports shall be adjusted shall be specified in Subheading 2 of the second paragraph of Subsection 619.03.

619.07 Basis of Payment.

THE SECOND PAY ITEM IS CHANGED TO:

GUIDE SIGNS, TYPE GA, STEEL "U" POST SUPPORTS SQUARE METER

SECTION 916 - SIGN MATERIALS

916.02 Aluminum Extruded Sign Panels.

THE LAST SENTENCE IS CHANGED TO:

Aluminum extruded sign panels are not permitted for use with steel "U" post sign supports.

916.10 "U" Post Sign Supports. THE TITLE AND THE ENTIRE SUBSECTION IS CHANGED TO:

916.10 Breakaway Steel "U" Post Sign Supports.

Steel "U" post shall be either Ribbak Modified-Flanged channel section as manufactured by Marion Steel Co., Marion, OH or the "U" channel section as manufactured by Highway Steel, Inc., Chicago Heights, IL. The breakaway system shall be the Lap Splice System as manufactured by Marion Steel, Inc. for the Ribbak Modified-Flanged channel section and Safety Splice System as manufactured by Highway Steel, Inc. for the "U" Channel Section, except that the steel "U" posts shall be galvanized after fabrication, including punching and drilling holes, in conformance with ASTM A 123.

Signs shall be secured to the steel "U" post by means of 18-8 stainless steel M8 x 1.25 hexagonal headed bolts and nuts conforming to ASTM A 320/A 320M. Sign mounting bolts shall extend beyond the end of each nut but not more than 20 millimeters when fully tightened.

The steel "U" posts shall be straight and have a smooth finish, free of burrs.

Instructions to Designers

Where applicable to a project, a copy of the *Standard Roadway Construction Details* CD-619-1 and CD-619-4 through CD-619-6 must be provided in the contract plans. Sheet CD-619-6 requires design specific information to be added and included in the contract plans.

A copy of the revised specifications as noted above has been provided to the Department's Technical Specifications Unit with the instructions to incorporate these revisions in the *Special Provisions* when necessary. Therefore, the designers do not need to create an insert to incorporate these changes.

Distribution to In-House Staff and Various Public Agencies

This BDC Announcement file can be viewed or downloaded from the State of New Jersey Department of Transportation Home Page at http://www.state.nj.us/transportation/. Click on "Capital Program Management", located on the left side of the web page. When this page is loaded, select "Capital Program Management Table of Contents" and click on "Go To Selection". Click whatever document you wish to view or download. The download files are in a zip format. If you need an unzipping program, download and install the "WINZIP" or "PKZIP" program located at the bottom of the page. Do this prior to downloading any files.

Electronic Standard Roadway Construction Details files for CD-619-1 and CD-619-4 through CD-619-6 can be downloaded from the State of New Jersey Department of Transportation Home Page at http://www.state.nj.us/transportation/. Click on "CADD Support", located on the left side of the web page. Read posted information and go to "Links" at the bottom of this web page. Now click on "Download CADD files" and then click on "Continue on to Download CADD files" after reading disclaimer. Finally, click on "Individual Standard Roadway Construction Details" to get the above mentioned detail sheets for downloading.

This announcement along with a half scale copy of the *Standard Roadway Construction Details* CD-619-1 and CD-619-4 through CD-619-6 will be distributed to in-house staff and various public agencies in accordance with the *Standard Roadway Construction Details* distribution list by the Office of Document Control. The hard copy distribution may be at least one month after date of this announcement because of printing delays, so rely on the web for faster service. Please make additional copies as needed.

Distribution to other Outside Agencies (Consultants, Contractors, etc.)

This BDC Announcement file and the NJDOT *Standard Roadway Construction Details* can be downloaded from the New Jersey Department of Transportation Home Page at http://www.state.nj.us/transportation/. See "Distribution to In-House Staff and Various Public Agencies" in this announcement for complete web page instructions.

This announcement along with a half scale copy of the *Standard Roadway Construction Details* CD-619-1 and CD-619-4 through CD-619-6 will be mailed to all *Standard Roadway Construction Details* holders. Make additional copies as needed. Half scale copies of the NJDOT *Standard Roadway Construction Details* with additions and revisions (current BDC announcements take approximately one month from the date of their issuance to become available for purchase due to printing delays) can be purchased by contacting:

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